REMARKS

Claims 1, 3-20 and 22-28 are currently pending in which claims 1, 19 and 28 are in independent format. In this response claims 1, 3, 19, 21 and 28 have been amended.

Applicant respectfully notes that during the August 23, 2005 telephone interview with the inventor and his attorney, Examiner Betz suggested amending the claims to further define the network and in particular, that the interconnectedness of the line segments be clearly set forth in the claims because this would clearly distinguish his method over the cited art. The reason for doing so, the Examiner said, at that time was that this feature was not present in the teachings of the prior art. In response to the Examiner's suggestion, Applicant amended claims 1, 19 and 28 to define the monitored network as including the plurality of interconnected line segments wherein information is obtained with respect to each interconnected line segment. Notwithstanding these amendments, Applicant's claims 1, 19, and 28 have been again amended to better set forth his invention and distinguish it from the prior art.

Specification Objection

The specification has been amended to correct the informalities as noted by the Examiner.

Claim Rejection Under 35 U.S.C. § 112

Claims 3 and 21 have been amended to overcome the insufficient antecedent basis rejection.

Claim Rejection Under 35 U.S.C. § 103(a)

Claims 1, 3-5, and 11-18 are rejected under 35 USC §103(a) on the basis of the previously cited Wobben publication, the reference "Sams Teach Yourself Microsoft Excel 2000 in 24 Hours", and the Cease et al. IEEE article "Real-Time Monitoring of the TVA Power System".

Claim 6 is rejected under 35 USC §103(a) on the basis of Wobben, Sams Teach Yourself Microsoft Excel 2000 in 24 Hours, the Cease et al. IEEE article,

and the reference "Sams Teach Yourself Microsoft PowerPoint 2000 in 10 Minutes".

Claims 7-10, 19, 21-23, and 25-27 are rejected under 35 USC §103(a) on the basis of Wobben, Sams Teach Yourself Microsoft Excel 2000 in 24 Hours, the Cease et al. IEEE article, and further in view of the previously cited Bauer et al. patent.

Claim 24 is rejected under 35 USC §103(a) on the basis of Wobben, Sams Teach Yourself Microsoft Excel 2000 in 24 Hours, the Cease et al. IEEE article, the Bauer et al. patent, and Sams Teach Yourself Microsoft PowerPoint 2000 in 10 Minutes.

Finally, claim 28 is rejected under 35 USC §103(a) on the basis of Wobben and the Cease et al. IEEE article.

A prima facie case of obviousness is established when one or more references that were available to the inventor and teach that a suggestion to combine or modify the references, the combination or modification of which would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art.

Under M.P.E.P. § 706.02(j), three basic criteria must be met for the *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Additionally, prior art may be considered not to teach an invention and thereby may fail to support an obviousness rejection, particularly when the stated objectives of the prior art reinforce such an

interpretation. *WMS Gaming Inc., v. International Game Tech.*, 184 F.3d 1339, 51 USPQ2d 1385 (Fed. Cir. 1999).

The Examiner contends that it would have been obvious to combine the Wobben reference and the Cease reference to extend Wobben's assessment of individual installations. The Examiner further contends that one cannot show non-obviousness by attacking references individually when the rejection is base on a combination and cites In Re Merck & Co., 800 F.2d 1091 (Fed. Cir. 1986). The Court in Merck stated that "the prior art of record can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success." Id. (Emphasis added).

The teachings of the Wobben reference disclose accessing separate installations and the teachings of the Cease reference disclose accessing individual nodes within a network. In other words, the references access individual points not interconnected line segments as Applicant's claims require. Therefore combining the node with the installation would not result in a reasonable expectation of success achieved by the Wobben reference. Although the Cease reference discusses a network, the Examiner has not provided a *prima facie* case of obviousness because there is not teaching or suggestion in either the Cease or Wobben references about obtaining, in real time, end to end information about the plurality of interconnected line segments.

With respect to the discussion and the claim amendments, Applicant has amended claims 1, 19 and 28 to make it clear that interconnected line segments within a section are monitored in real time with respect to a performance parameter or characteristic of the network. The interconnected line segments are monitored end to end (i.e., the entire length of each interconnected line segment can be monitored). Each line segment is so monitored, and a three dimensional display is provided for an observer to readily view the information gathered for the section. In the display, one axis represents the interconnected line segments. A second axis represents the magnitude of the measured characteristic, and the third axis represents time. Based on the three-

dimensional display, the interconnected line segments are analyzed on a topological basis. As such, the geographical aspect is removed (i.e., the Cease reference) and the respective data of the present application is based on the network connectivity.

Such a novel presentation allows an observer, for example, to observe momentary outages or "blinks" which occur throughout the section. If a tree limb, for example, is rubbing against a line, the blink count which occurs for that line segment and successive interconnected line segments will be greater than for those interconnected line segments ahead of the tree. This allows the observer to determine where within the network section to look for the cause of the problem. The advantage of Applicant's method over the prior is that it monitors the "health" of a series of interconnected segments, provides real-time information as to whether or not a segment is or is not supplying electricity, and provides sufficient historical information so the possibility of an imminent failure can be identified and a problem fixed before a power outage occurs.

None of the cited art, considered either singly or in combination, teach or suggest Applicant's method. The two cited Sams publication merely teach how to organize data on a spreadsheet or otherwise. There is no teaching or suggestion of the type of graphical display created by Applicant for mapping a section of a network and in particular interconnected line segments of the network, and including both the magnitude of a monitored performance characteristic and providing historical information about the segments, so one can ascertain if there is a problem, where the problem is within any portion of the line segment, and its magnitude and extent.

With respect to the Wobben reference, it monitors separate installations of a system, not interconnected segments of a system. Importantly, there is no teaching or suggestion of graphical display such as Applicant requires which combines both current and historical data about a particular performance parameter or characteristic not only for a single installation, over an interconnected portion or segment of the installation. Further, and as previously

pointed out in the reply to the earlier Office action, another problem with Wobben is what happens if an "event" (such as a blink) is so brief that it is missed by a monitor. Applicant's amended claims address this problem by plotting historical data related to a line segment so an observer (person or computer) can readily make a judgment as to the significance of the data, quantify the magnitude of an event numerically; and, based on predetermined thresholds, determine what is significant for presentation to the network operator or manager.

With respect to the Cease et al. article, it discusses phasor measurement as part of real-time monitoring for a power system such as that operated by the TVA. Fig. 4 of the Cease et al. article is a three-dimensional power flow display in which sources and sinks in a power system are represented as rising and falling areas on the display.

With respect to Applicant's method as set forth in his independent claims 1, 19, and 28, Cease et al. is directed at individual points or nodes within the distribution network, not a series of interconnected points (i.e., line segments) which would extend between nodes. Information is collected only for the nodes. Accordingly, there is no way to determine what is happening between one node and another. This failure to provide an end-to-end monitoring and display capability makes it much for difficult, if not impossible, for an operator to do more than a "gross" analysis of the system whereas Applicant's method facilitates a much "finer" analysis that is more likely to uncover problems before they cause a failure. In addition, Applicant's method enables the user to pinpoint exact locations within a section where the problem has or may arise, rather than simply being able to say that it somewhere between node A and node B. In a power distribution system such as the TVA which large geographically and includes large amounts of rugged terrain not easily reached, the ability of Applicant's method to identify, find and fix a problem has significant advantages over the phasor measurement methodology and mapping of Cease et al.

Based upon the foregoing, Applicant submits that his claims 1, 3-19, and 21-28 are allowable.

Dependent claims, by their nature, include all of the limitations of the parent independent claim and any intervening claims from which they depend. Claims 3-18 and 21-27 each depend either directly or indirectly from independent claims 1 and19, and accordingly, are believed allowable under 35 U.S.C. § 103(a) over the references for at least the same reasons as independent claims 1 and 19.

If for any reason the Examiner is unable to allow the application on the next Office Action and feels that an interview would be helpful to resolve any remaining issues, the Examiner is respectfully requested to contact the undersigned attorney for the purpose of arranging such an interview.

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Respectfully submitted,

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